

AMENDMENTS TO THE CLAIMS:

Claims 1-14 (Canceled)

15. (Previously amended) Chopper-type direct-current converter comprising:

a magnetic core, which comprises:

a first and a second side leg, the ends of which are connection to each other with end pieces; and

a center leg provided with an air gap and connected to the end pieces between the first and second side legs; around which magnetic core are arranged:

a primary winding;

a secondary winding; and

a secondary side filter coil; where

the filter coil is wound around the center leg; and

the primary and secondary windings are wound around the side legs so that the magnetic flux produced by them flows in the same direction as the magnetic flux of the filter coil.

16. (Previously amended) Converter as defined in claim 15, wherein the primary side of the converter is provided with four windings, two windings being connected in series around the first and the second side legs so that the magnetic flux produced by the windings flows in the same direction on both side legs.

17. (Previously amended) Converter as defined in claim 15, wherein the secondary side of the converter is provided with two windings connected in series around the first and the second side legs so that the magnetic flux produced by the windings flows in a direction opposite to the direction of the magnetic flux produced by the primary winding placed on the same side leg.

18. (Currently amended) Converter as defined in claim 15, wherein:

the primary side is provided with series-connected first and second switching elements, which are connected in parallel with ~~the~~ an input voltage and which serve to control the primary windings; and

the primary side is provided with two capacitors, the first capacitor being connected between the switching elements and the second capacitor in parallel with the input voltage.

19. (Currently amended) Converter as claimed in claim 16, wherein the primary side of the converter is provided with two switching elements and two capacitors in such manner that:

the first switching element is connected in series between two primary windings and the second switching element correspondingly in series between the other two primary windings; and

the first capacitor is connected to ~~the~~ a first side of the first switching element and to ~~the~~ a second side of the second switching element and the second capacitor is

connected to ~~the~~ a second side of the first switching element and to ~~the~~ a first side of the second switching element.

20. (Currently amended) Converter as defined in claim 15, wherein the primary side of the converter is provided with four windings in such manner that:

first two windings are connected in series around the first and second side legs; the magnetic flux produced by windings flows in the same direction on both side legs; and

the other two windings are connected in a corresponding manner so that the windings produce a magnetic flux in a direction opposite to the ~~former~~ first windings on the same side leg.

21. (Currently amended) Converter as defined in claim 20, wherein the primary side is provided with two switching elements and a capacitor in such manner that:

the first and second switching elements are connected by one end in series with two primary windings and by the other end to one pole of the input voltage; and

the capacitor is connected in parallel with ~~the~~ an input voltage.

22. (Previously amended) Converter as defined in claim 15, wherein the primary side is provided with two switching elements, two capacitors and two windings in such manner that:

the switching elements and the capacitors are arranged in a half-bridge circuit; and

the windings are connected in series so that the magnetic flux produced by the windings flows in the same direction on both side legs and the windings are connected by one end between the switching elements and by the other end between the capacitors.

23. (Previously amended) Converter as defined in claim 15, wherein the primary side is provided with four switching elements, a capacitor and two windings in such manner that:

the switching elements are arranged in a full bridge circuit;

the capacitor is connected in parallel with the supply voltage; and

the windings are connected in series so that the magnetic flux produced by the windings flows in the same direction on both side legs and the windings are connected by one end between two switching elements and by the other end between the other two switching elements.

24. (Currently amended) Converter as defined in claim 15, wherein the first end of the filter coil is connected between the secondary windings on the first and second side legs and the second end is connected to the a first pole of ~~the~~ an output voltage of the converter.

25. (Currently amended) Converter as defined in claim 18 ~~15~~, wherein the secondary side is provided with a third and a fourth switching element connected in series

with the secondary winding and ~~the~~ a second pole of ~~the~~ an output voltage of the converter is disposed between the third and fourth switching elements.

26. (Currently amended) Converter as defined in claim 24, wherein the secondary side is provided with a first and a second diode connected in series with the secondary winding and ~~the~~ a second pole of the output voltage of the converter is disposed between the first and second diodes.

27. (Previously amended) Converter as defined in claim 15, wherein the secondary side is provided with at least two different voltage outputs in such manner that, for each voltage output, two windings are connected around the first and second side legs.

28. (Previously amended) Chopper-type regulator, comprising:

a magnetic core, which comprises:

a first and a second side leg, the ends of which are connected to each other with end pieces; and

a center leg provided with an air gap and connected to the end pieces between the first and second side legs; around which magnetic core are arranged:

two windings; and

a filter coil, wherein

the filter coil is disposed around the center leg; and

the windings are disposed around the side legs so that the magnetic flux produced by them flow in the same direction with the magnetic flux of the filter coil.